

CLAIMS

What is claimed is:

1. A method, comprising:
 - 2 depositing a switching fluid with a surface area on a first substrate;
 - depositing a gettering agent on the first substrate; and
 - 4 mating the first substrate to a second substrate, the first substrate and the
second substrate defining therebetween a cavity holding the switching fluid, the
6 cavity being sized to allow movement of the switching fluid between first and
second states.
2. The method of claim 1, wherein the gettering agent comprises a heater.
2
3. The method of claim 1, wherein the switching fluid comprises mercury.
4. The method of claim 3, wherein the gettering agent comprises aluminum,
2 magnesium or titanium.
5. The switch of claim 1, wherein the switch is a liquid metal switch.
6. The switch of claim 1, wherein the switching fluid comprises mercury.

7. The switch of claim 6, wherein the gettering agent comprises aluminum,
2 magnesium or titanium.

8. The switch of claim 7, wherein the gettering agent comprises a heater.

9. A switch comprising:

2 first and second mated substrates defining therebetween at least portions
of a number of cavities;

4 a plurality of electrodes exposed within one or more of the cavities;

a switching fluid, held within a first one of the cavities, that serves to open
6 and close at least a pair of the plurality of electrodes in response to forces that
are applied to the switching fluid;

8 a gettering agent exposed within one or more of the cavities;

an actuating fluid, held within one or more of the cavities, that applies the
10 forces to said switching fluid.

10. The switch of claim 9, wherein the gettering agent may be activated with a
2 heater.

11. The switch of claim 9, wherein the switching fluid comprises mercury.

2

12. The switch of claim 11, wherein the gettering agent comprises
2 aluminum, magnesium or titanium.

13. A switch comprising:

- 2 first and second mated substrates defining therebetween at least portions
of a number of cavities;
- 4 a plurality of wettable pads exposed within one or more of the cavities;
a switching fluid, wettable to said pads and held within one or more of the
- 6 cavities, that serves to open and block light paths through one or more of the
cavities in response to forces that are applied to the switching fluid;
- 8 a gettering agent deposited within one or more of the cavities; and
an actuating fluid, held within one or more of the cavities, that applies the
- 10 forces to said switching fluid.

14. The switch according to claim 13, wherein a heater activates the gettering

2 agent.

15. The switch according to claim 14, wherein the switching fluid comprises

2 mercury.

16. The switch according to claim 15, wherein the gettering agent comprises

2 aluminum, magnesium or titanium.